

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 8. (Cancelled)
9. (New) A device for detecting a leak in a tire of a motor vehicle wheel, comprising:
 - means for measuring the pressure of the gas contained in the tire;
 - means for collecting pressure measurement data;
 - means for calculating the change in pressure between two instants of measurement data collection; and
 - means for clocking the time of the measurement data collection and for calculating the change in pressure between clocked instants of collection.
10. (New) A device according to claim 9, further including means for calculating clocking differences between successive measurement data.
11. (New) A device according to claim 10, wherein the data collection means is configured to transmit a signal for interrupting the clocking means in order to record in a memory the instant of receipt of the measurement data.
12. (New) A device according to claim 9, further including means for measuring the temperature of the gas contained in the tire, wherein the data collection means is further configured to collect the temperature measurement and the calculating means is further configured to temperature-compensate the pressure measurement.
13. (New) A device according to claim 12, in which the calculating means is configured to establish the equation:

$$P_c = (P_m + 1.014) \frac{T_{ref}}{T_m} - 1.014$$

in which P_C and P_m are relative pressures and the temperatures T_{ref} and T_m are expressed in Kelvin.

14. (New) A device according to claim 12, further including means for transmitting an alarm signal based on the compensated pressure.

15. (New) A device for detecting underinflation of a tire of a motor vehicle wheel, comprising:

means for measuring the pressure and temperature of the gas contained in the tire;
means for collecting the pressure and temperature measurement data; and
means for temperature-compensating the pressure measurement.

16. (New) A device according to claim 15, further comprising a module for calculating clocking differences between successive measurement data.

17. (New) A device according to claim 16, wherein the data collection means is designed to transmit a signal for interrupting the clocking means in order to record in a memory the instant of receipt of the measurement data.

18. (New) A device according to claim 15, in which the calculating means is configured to establish the equation:

$$P_C = (P_m + 1.014) \frac{T_{ref}}{T_m} - 1.014$$

in which P_C and P_m are relative pressures and the temperatures T_{ref} and T_m are expressed in Kelvin.

19. (New) A device according to claim 15, further including means for transmitting an alarm signal based on the compensated pressure.

20. (New) A device for detecting a leak in a tire of a motor vehicle wheel, comprising:

a tire pressure monitor for measuring the pressure of the gas contained in the tire;

a memory for collecting pressure measurement data;
a circuit for clocking the time of the measurement data collection; and
a microprocessor for calculating the change in pressure between two instants of measurement data collection and for calculating the change in pressure between clocked instants of collection.

21. (New) A device according to claim 20, wherein the microprocessor is further configured to calculate clocking differences between successive measurement data.

22. (New) A device according to claim 21, wherein the microprocessor is further configured to transmit a signal for interrupting the clocking module and record in the memory the instant of receipt of the measurement data.

23. (New) A device according to claim 20, further including a temperature sensor for measuring the temperature of the gas contained in the tire and wherein the wherein the microprocessor is further configured to calculate to collect the temperature measurement and the clocking module is further configure to temperature-compensate the pressure measurement.

24. (New) A device according to claim 23, wherein the microprocessor is configured to establish the equation:

$$P_c = (P_m + 1.014) \frac{T_{ref}}{T_m} - 1.014$$

in which P_c and P_m are relative pressures and the temperatures T_{ref} and T_m are expressed in Kelvin.

25. (New) A device according to claim 23, wherein the microprocessor is further configured to transmit an alarm signal based on the compensated pressure and a threshold value.